

DOG INFECTION NOTICE – updated September 2014

BACKGROUND: Each year in the Lahontan Valley wetlands, there are a few reported cases of dogs becoming sick after visiting Stillwater National Wildlife Refuge and Carson Lake & Pasture in Churchill County, outside of Fallon NV. Most of these cases occur during the warmer months, and most reports are from waterfowl hunters in the Fall.

ISSUE: Infections are caused by naturally occurring bacteria in the water and soils of the Lahontan Valley wetland and marsh habitat. Bacterium identified as causing this infection are *Aeromonas* sp. and *Klebsiella* sp., which are commonly found in freshwater, estuarine, and salt water environments. Anyone bringing dogs to these areas should be aware of the bacteria and possible infection.

METHOD OF TRANSMITTAL: Bacteria primarily enter the dog's body through small cuts and punctures most often found on the paw pads, making them extremely difficult to observe. Often the dog has no cuts on the pads until after they enter the marsh, as the sharp ends of common marsh plants such as tules, cattails and bulrush can puncture the paw pads and act like a needle by injecting the bacteria through the cuts into the bloodstream. These are opportunistic bacteria, and could potentially cause serious infection to any animal, including humans, exhibiting open cuts, wounds or other injuries.

SYMPTOMS: Once the dog is infected, symptoms can appear very quickly, within a few hours, and include: very tender, painful and extremely swollen pads, paws and/or legs; blistering may appear at the point of entry on or between paw pads. The dog may exhibit unwillingness or inability to walk, chills, fever and lethargy.

TREATMENT: In the field, clean and disinfect any cuts or wounds observed as soon as noticed. Consult a veterinarian for lancing and treatment of the wound site, and a follow-up course of antibiotics. The infections can be successfully treated with antibiotics, but it is important to seek medical care as quickly as possible. Older dogs or those with compromised immune systems, other illness or health issues can be affected more severely.

PROGNOSIS: The majority of reported cases make a full, successful recovery from the bacterial infections if treated early. There is some risk of secondary infection at the wound site after lancing, or if the animals' health is already compromised. There is no evidence of immunities from recurrence once a dog has been infected and recovered.

PREVENTION: There is no evidence that a prophylactic antibiotic course will prevent an infection from occurring in the field. Some dog owners use heavy duty boots to prevent paw injury, but these are not proven to prevent infection, especially if the dog has pre-existing wounds.

HUMAN THREATS: People who have open wounds, cuts or punctures could potentially become infected with these bacteria. However, most people in the marsh are wearing protective gear such as boots, waders, gloves or are in boats. As with all hunting practices, it is advised to wear gloves when handling, cleaning or cooking wild game. Do not shoot, handle or consume game animals that act abnormal or appear to be sick. Properly clean, store and prepare any wild game. Wash hands, knives and other field gear after contact with or use on wild game, and seek medical attention if symptoms such as pain, redness or swelling appear.